

Serial No. 10/042,894  
Amendment dated 04/12/2005  
Reply to Office Action of 12/29/2004

### REMARKS/ARGUMENTS

Claims 1-4, 6-11, 13-21 and 47-68 are pending in the application. Claims 2, 13, and 47-68 have been canceled. Claims 1, 19, and 20 have been amended. Applicants expressly reserve the right to file divisional applications or take such other appropriate measures deemed necessary to protect the inventions in the withdrawn and canceled claims. Support for the amendments to the above-referenced claims can be found in the original claims and on pages 7-19 of the specification as originally filed. No new matter has been added by way of amendment. Applicants respectfully request reconsideration of the claims in view of the following remarks.

#### Detailed Action

##### *Claim Objection*

The Office Action states: "Claims 19 and 20 are objected to for reciting 'of' before the recitation of 'phytate'."

The Examiner is thanked for pointing out the clerical error. Claims 19 and 20 have been amended to remove the word "of" before "phytate".

#### Claim Rejections Under 35 U.S.C. §112, Second Paragraph

Claims 1-4, 6-11, 13-21 and 47 are rejected under 35 USC 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Dependent claims are included in the rejection.

The Office Action states: "Claim 1 is indefinite for reciting 'wherein the polynucleotide has IPPK activity'. It is unclear how a polynucleotide can have IPPK activity."

Claims 2, 13, and 47-68 have been cancelled. Claims 1, 19 and 20 have been amended.

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Claim 1 has been amended to read: "... a) a polynucleotide encoding the polypeptide of SEQ ID NO:8 wherein the *polypeptide* has IPPK activity;" (italics added). As an encoded polypeptide can have enzymatic activity, it is believed the amendment obviates the rejection.

Claim Rejections Under 35 U.S.C. §112, First Paragraph

Claims 1-4, 6-11, and 13-21 remain rejected and claim 47 is rejected under 35 USC §112, first paragraph as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The rejection is maintained for reasons of record set forth in the Office Action mailed 6/3/2004.

The Office Action states: "The Office contends that the written description rejection is for claims drawn to sequences that exhibit less than 100% sequence identity with SEQ ID NO:7 or for sequences that encode a protein that exhibits less than 100% amino acid activity with SEQ ID NO:8."

Claims 2, 13, and 47-68 have been cancelled. Claims 1, 19 and 20 have been amended.

Present Claim 1 has been amended to omit reference to sequences with less than 100% sequence identity with SEQ ID NO:7 or for sequences that encode a protein that exhibits less than 100% amino acid activity with SEQ ID NO:8. Applicants expressly reserve the right to file continuation applications or take such other appropriate measures deemed necessary to protect the inventions in the amended claims. It is believed the amendment obviates the rejection and places the present claims in condition for allowance.

Claims 1-4, 6-11, and 13-21 remain rejected and claims 47-68 are rejected under 35 USC §112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to

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which it pertains, or with which it is most nearly connected, to make and or use the invention. This rejection is maintained for the reasons of record set forth in the Office Action mailed 6/3/2004.

The Office Action states: "Given the unpredictability of modifying phytate levels, or the unpredictability of determining if a nucleic acid exhibiting at least 80% sequence identity to SEQ ID NO:7 will encode a protein with the same activity as the protein of SEQ ID NO:8, undue trial and error experimentation would be required by one skilled in the art to practice the claimed invention....The Office contends that Applicants have not disclosed any sequence exhibiting 80% sequence identity with SEQ ID NO:7 or any sequence exhibiting 80% sequence identity with SEQ ID NO:7 that encodes a protein with the same activity as the protein of SEQ ID NO:8."

Claims 2, 13, and 47-68 have been cancelled. Claims 1, 19 and 20 have been amended.

Present Claim 1 has been amended to omit reference to sequences with less than 100% sequence identity with SEQ ID NO:7 or for sequences that encode a protein that exhibits less than 100% amino acid activity with SEQ ID NO:8. Applicants expressly reserve the right to file continuation applications or take such other appropriate measures deemed necessary to protect the inventions in the amended claims. It is believed the amendment obviates the rejection and places the present claims in condition for allowance.

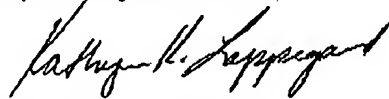
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### CONCLUSION

In conclusion, Applicants submit that in light of the above amendments and remarks, the current claims are in a condition for allowance, and reconsideration is respectfully requested. If it is felt that it would aid in prosecution, the Examiner is invited to contact the undersigned at the number indicated to discuss any outstanding issues.

Reconsideration and allowance is respectfully requested.

Respectfully submitted,



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